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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,407	07/09/2003	Gilles Baillet	ESSI:013CP1C1	9285

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EXAMINER
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CLEVELAND, MICHAEL B

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/616,407

Applicant(s)

BAILLET ET AL.

Examiner

Michael Cleveland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/242,384.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: Figures 5 and 6 are not referred to in the BRIEF DESCRIPTION OF THE DRAWINGS.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berens et al. (U.S. Patent 4,820,752, hereafter '752) in view of Welch (U.S. Patent 4,880,667, hereafter '667).

Claims 1 and 11: '752 teaches the impregnation of additives (such as those listed in col. 5, lines 7-19 including plasticizers, antioxidants, dyes (colorants), and UV stabilizers and sensitizers) into polymers using a compressed solvent fluid. The solvent fluid may be supercritical (col. 6, lines 1-5). The additive and fluid may be introduced into a pressure vessel containing the polymer. The fluid may be compressed before or after introduction to the vessel. The solvent and polymer are contacted long enough to permit swelling of the polymer. The fluid solvent is removed, allowing recovery of the impregnated polymer (col. 5, line 40- col. 6, line 29). The process is suitable for polymers that include polyacrylates, polycarbonates, polyurethanes, etc. (col. 4, line 64-col. 5, line 3). '752 does not teach that the polymer is an ophthalmic article.

'667 teaches the impregnation via thermal diffusion of a photochromic material (i.e., a UV-sensitive colorant) into a transparent material suitable as an ophthalmic lens. Such transparent materials are listed in col. 7, line 57-col. 8, line 21 and include polyacrylates, polycarbonates, polyurethanes, etc. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the solvent-impregnation method of '752 to impregnate a plastic ophthalmic article with the expectation of similar results.

'667 teaches that it may be advantageous to add a plasticizer to the host material before adding the photochromic material. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of '752 to add a plasticizer before impregnating the photochromic material.

Claims 2 and 12: See above.

Claims 3-4 and 13-14: '752 teaches that the temperature is chosen below a temperature detrimental to the additive or polymer (col. 5, lines 52-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the temperature for best results.

Claims 5-6 and 15-16: '752 teaches that the amount of material impregnated depends on the time of contact with the solvent fluid (col. 6, lines 5-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the time for best results.

Claims 7 and 17: '752 teaches that carbon dioxide is a preferred solvent (col. 5, lines 30-32) and is used in its supercritical state in Example 6.

Claims 9-10 and 19-20: Contact lenses and spectacle lenses are typical ophthalmic articles.

4. Claims 1-7, 9-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perman et al. (U.S. Patent 5,340,614, hereafter '614) in view of Welch (U.S. Patent 4,880,667, hereafter '667).

'614 teaches the use of a supercritical fluid to impregnate a polymer (including polyacrylates, etc., col. 9, lines 31-49) with an additive (such as dyes, col. 6, line 61-col. 7, line 12). The polymer, additive, and a solvent are added to a pressure vessel. Then, a supercritical fluid is introduced. The supercritical fluid contacts the polymer to permit impregnation. The fluid is removed, and the article is recovered (col. 3, line 26-col. 4, line 38). '614 does not teach that the polymer is an ophthalmic article.

'667 teaches the impregnation of a photochromic material into an ophthalmic lens as described above. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to have used the method of '614 to impregnate an additive into a plastic ophthalmic lens with the expectation of similar results.

'667 teaches that it may be advantageous to add a plasticizer to the host material before adding the photochromic material. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the method of '614 to add a plasticizer before impregnating the photochromic material.

Claims 2 and 12: The substrate includes polyacrylates ('614, col. 9, lines 31-49).

Claims 3-6, 13-16: Time and temperature are result-effective parameters ('614, col. 10, lines 32-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized them for best results.

Claims 7 and 17: Carbon dioxide is a preferred supercritical fluid (col. 12, lines 14-20).

Claims 9-10 and 19-20: Contact lenses and spectacle lenses are typical ophthalmic articles.

5. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berens '752 in view of Welch '667 as applied to claims 1 and 11 above, and further in view of Coleman et al. (U.S. Patent 5,708,064, hereafter '064).

Berens '752 and Welch '667 teach the limitations of claims 1 and 11, as described above. They do not teach that the plasticizer is a linear or branched phthalate, a fatty acid ester, or a poly(ethylene glycol)dibenzoate. In fact, '752 and '667 do not teach specific plasticizers. Therefore, one of ordinary skill in the art would have looked to the related art the identity of plasticizers suitable for use with ophthalmic articles made of the materials disclosed in '667, col. 7, line 57-col. 8, lines 21, and also containing photochromic materials.

'064 teaches organic ophthalmic articles of polyol(allyl carbonates), polyacrylates, poly(methacrylates), and vinyl polymers (col. 2, lines 26-col. 3, line 15), which significantly overlaps the ophthalmic substrate materials of '667. The articles incorporate photochromic additives (col. 6, line 61-col. 7, line 29). '667 further indicates that the substrates may incorporate a plasticizer such as poly(ethylene glycol)dibenzoate (col. 5, lines 1-30).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used poly(ethylene glycol)dibenzoate as the particular plasticizer of '752 and '667 with a reasonable expectation of success because '064 teaches that it is a suitable

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plasticizer for ophthalmic articles made with the same materials as those of '667 and incorporating photochromic compounds.

6. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perman '614 in view of Welch '667 as applied to claims 1 and 11 above, and further in view of Coleman et al. (U.S. Patent 5,708,064, hereafter '064) for similar reasons to those in the preceding paragraph.

### *Conclusion*

7. This is a continuation of applicant's earlier Application No. 09/729648. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Tuesday-Friday and alternate Mon, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Cleveland  
Patent Examiner  
February 8, 2004



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